

Questions and Observations from a Caribbean Fisherman

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ABSTRACT

Based in Barbados, I have been a fisherman for the past thirty-three years in various small-scale fisheries. In that period I have become what some in northern areas call a 'high-liner'. My catch rate is high, but so is my interest in fisheries management and conservation out of respect for the environment from which I earn my livelihood. I am the product of a fishing family in which the sons of several generations have gone to sea. However, never in the past have there been so many unanswered questions concerning patterns of fish behaviour and the fishing environment. Climate change, shifts in the typical patterns of sea currents and temperature, coral bleaching, changes in sea water colour and other phenomena are investigated by scientists. However, the information of science seldom makes its way into the conversations of fishermen except in speculation. Some observed changes in marine resources and their use patterns in recent decades are described in this paper. Emphasis is on the pelagic fisheries of Barbados and the eastern Caribbean and how the changes impact upon fishing. Questions are posed to seek answers about the causes underlying these observations. Recommendations are made on how fishermen should respond to their observations.

KEY WORDS: Fishermen, observations, questions

Preguntas y Observaciones de un Pescador del Caribe

Con base en Barbados, he sido un pescador durante los pasados treinta y tres años en diversas pesquerías artesanales. Durante este periodo me he convertido en lo que algunos en áreas del norte llaman "high-liner". Mi promedio de pesca es alto, igual mi interés en manejo y conservación de pesca que nace del respeto hacia el medioambiente del cual obtengo mi subsistencia. Soy el producto de una familia de pescadores en la cual los hijos de varias generaciones han salido al mar. Sin embargo, nunca en el pasado ha habido tantas preguntas sin contestar relacionadas al patrón de comportamiento de los peces y el ambiente pesquero. Cambios climatológicos, cambios en los patrones normales de corrientes marinas y la temperatura, blanqueo de coral, cambio de color del agua marino y otros fenómenos que son investigados por científicos. Sin embargo, la información científica rara vez forma parte de la conversación de pescadores excepto a manera de especulación. Algunos cambios observados en los recursos marinos y sus patrones de uso en décadas recientes se describen en este escrito. Se hace énfasis en los grandes pelágicos de Barbados y el Caribe Oriental y el impacto de estos cambios sobre la pesca. Se proponen preguntas a fin de buscar respuestas sobre las causas subyacentes de estas observaciones. Se hacen recomendaciones sobre como los pescadores deberían responder a estas observaciones.

PALABRAS CLAVES: Pescadores, observaciones, preguntas

INTRODUCTION

John Ruskin, a well known psychologist, once said "in order for a man to be happy it is necessary that he should not only be capable of doing his work, but also a good judge of his work." Today I am a happy man. It is an honour and pleasure for me, a humble fisherman from the beautiful island of Barbados, to be a part of this meeting of great minds. I am here to share information on, and ask questions about, some of the many changes that I have noticed whilst working at sea. These changes seem to be impacting the fishing industry of Barbados. Some of you may wonder what qualifies me to speak on this topic, and how much could I share by way of observations that could possibly make a difference to our knowledge of the marine environment. I leave it up to you to determine after I tell you a little about myself and a lot about my fishing experience.

FISHING BACKGROUND

Being a fisherman has been my occupation for the past thirty-three (33) years. I had my induction to the sea at an early age, becoming part of a legacy of a family of fishermen which has spanned over four generations from both sides of my family. I have since passed on some of

my knowledge to my sons. Over time, I have sharpened my skills through learning from the experiences of my peers, and I can boast of having many successful fishing seasons. Highlights of my career include, in 1997, when I had the record catch of 1,012 dolphinfish (mahi mahi) in a period when they were plentiful. This is a record that went unbroken for ten years until 2007, when I caught 1,024 dolphinfish in a period when it was sometimes said that there was overfishing. It seemed odd that dolphin was plentiful for several years, and again even more in 2007.

Mind you, it has not only been a bed of roses since I have also experienced my share of misadventure and even a few nightmares at sea. For example:

I was shot at sea.

I fell asleep whilst taking a rest and woke up to see large ship right next to me, almost directly in its path.

I have found the bilge flooded, I have had to clear ropes and nets from the propeller, sometimes at night.

My boat has broken down in a storm.

I have navigated the North Atlantic from Canada to Barbados via Bermuda by boat, experiencing sea swells 10 – 12 m, and this was not in a storm.

The strange thing is that the swells were coming from west to east; something I was not accustomed to.

OBSERVATIONS

The annual fishing season in Barbados runs from November to July, with the main catches including four-winged flyingfish (*Hirundichthys affinis*), dolphinfish (*Coryphaena hippurus*), wahoo (*Acanthocybium solandri*) – called “kingfish” locally, swordfish (*Xiphias gladius*), tunas (*Scombroidei*) and billfishes (*Istiophoridae*). On average, I spend about twenty-one days out of every month at sea. These trips usually last from seven to nine days at a time. I usually captain an ‘iceboat’, but I am also involved in longline fishing, setting ‘fish pots’, spear fishing, and in earlier times, I harvested the now rare delicacy ‘sea eggs’ (*Tripneustes ventricosus*).

The disappearance of sea eggs has been a significant loss. I remember in the older days there used to be sea eggs at the shoreline piled up on each other covered in ‘moss’ (algae and seagrass). We would go to one spot and get what we wanted from there for days at a time, and the quality of the sea egg would be the best. The difference is that the sea egg gonads today are not to their usual standard, but are smaller. The ones which you might think are the best are often dark brown, meaning that they are not suitable for consumption. I wonder why these changes have occurred.

I also remember my father and grandfather referring to the differences that they witnessed too. For example, they would not have to venture too far from port to find all kinds of fish: sharks, dolphinfish, lionfish, and kingfish close to shore. Right now we have to venture long distances to reach the best fishing areas.

In terms of the total quantity of fish landed and average catch per trip, the 2006 - 2007 season has been the most successful ever recorded in the history of fishing in Barbados, or at least in the collective memories of the people in the fishing industry. Never before have I seen or heard of so many dolphinfish (mahi mahi) being caught. There was uniqueness in terms of the change in pattern of fish sizes. Over the years, I have seen the size of fish, especially of dolphin, become smaller. Now it seems as though they no longer grow to their usual potential.

Traditionally, at the beginning of the season (December – February), dolphinfish are usually small, but by the middle of the season (March - May) average individual weight ranges between 7 – 10 kilograms. However, during the recently concluded fishing season (2007), there was a noticeable reduction in the fish size when compared to previous years. They barely tipped the scales around 4 - 5 kg, on average. In the period April to June, dolphinfish still remained 5 kg lighter than was customary for this period.

Although they were plentiful, dolphinfish were undersized, and this was quite unusual. This was a first time occurrence for me, and other experienced fishermen had similar observations. Nevertheless, it was a record year for dolphinfish, and large catches were consistent this season, with many of my colleagues fearing quite well, and catching from 200 to 1,000 heads at a time on a trip.

Flyingfish (*Hirundichthys affinis*) were not as plentiful as usual at the beginning of the season, and it is possible that this was so because of the magnitude of dolphinfish abundance, being a function of the predator-prey ratio. However, the number of flyingfish caught increased from May onwards and they continued to be in abundance until the end of the season in July 2007. This was also a noticeable change from previous years in which flyingfish would be in abundance from the start of fishing, and remain consistent throughout the season. Notably, there would always be a slight decline in abundance during March and April, when dolphin take over, but there would be marked increases in flyingfish again from May.

I constantly refer to dolphinfish and not kingfish (actually mainly wahoo) ... why? This is because kingfish (wahoo) were virtually non-existent or very scarce in the 2006 - 2007 season. In fishing circles we are well aware that these two (dolphinfish and wahoo) have similar abundance, but this time it was different. Normally, the abundance of kingfish would increase steadily, especially around fishing attraction devices (FADs), but this year very few kingfish were caught.

So far, this has been one of the poorest longlining seasons I have ever witnessed. So poor was it that longline vessels had to resort to catching flyingfish. The truly multi-purpose longliners are equipped to handle any type of fishing, even though fishing for tunas or dolphinfish is more profitable than for flyingfish.

Triple tails (*Lobotes surinamensis*) were also more visible, and there was an increase in harvesting. We use 30 - 100 pound test line and a #9 hook with flyingfish and jacks for bait. Harvesting these fish is opportunistic, and we do not know exactly where to find them. They bite day or night, in schools or singly, mostly around floating objects. There is a better market for these fish than dolphin and flyingfish. Consumers like them and are asking specifically for them. This locally underutilised species is now sought after.

There were more sightings of killer whales (*Orcinus orca*). I personally had seen only three of them prior to this season, and it was ten (10) years ago when I made my first sighting. This season, a seven metre long killer whale actually chased my boat after I had ventured to close to a family of three whales, one of which was a baby. Around Barbados, sightings of killer whales are very uncommon. Fishermen conclude that they hardly inhabit these waters. So their abundance was another noticeable change in this season compared to past recollection.

All species of sharks remain scarce, whilst the behavioural patterns of the bottle nosed dolphin (*Tursiops truncatus*) were rather strange. Something to take note of was that we noticed an increase in the number of bottle nosed dolphins, and this was very unusual. Previously, this was not a problem but this year, the mammals were quite visible, and many fishermen complained that they would stay around for 2 - 3 days, eating the flying fish that were both in and out of the nets, and some times the drift had to be abandoned. This has never happened before, and has caused some anxiety among my colleagues and I, because there is loss of catch, and in cases where the drift is abandoned they would follow. In some cases one set is replaced by another.

Changes in water temperature were observed. Waters were cooler than fishers were accustomed to, and there were plenty 'riffles' (ocean fronts marked by flotsam) around. We have also witnessed a decrease in the volume of seabirds, especially sea gulls. But we are now more accustomed to seeing more of one simply known as "the brown duck".

QUESTIONS AND COMMENTS

There are also questions which come to mind after observing these changes:

- i) Was the number of dolphins so great that they pushed the flying fish away during that period?
- ii) Are we experiencing changes in the patterns of the ocean currents?
- iii) Why is there such a high occurrence in the erosion of beaches in Barbados, especially on the eastern and southerly side of the island?
- iv) Fishing pattern remained the same and there was no change in the distance that the boat had to drift.

Up until this very moment I have enjoyed and relished the challenges that fishing presents as a livelihood, and believe me they are numerous. Fishing is very hard work and a dangerous profession. If there are three things which I could say that I dislike about my profession, they would have to be:

- i) Long hours spent away from my family and friends.
- ii) There is little or no respect for fisher men.
- iii) There is no unity among the fishing fraternity, and as a result we are exploited by the post-harvest sector (market fees are structured in favour of the post harvest sector).

My comments on what needs to be done are as follows:

- i) If we could have workshops which included fishermen from around the world, then we could understand more about sea activity. We can also learn from each other and this can only widen our knowledge base since every day at sea is a

learning experience.

- ii) Provision of necessary equipment – cameras, satellite phones, radios etc. which could be used for gathering data as it related to activities of climate change and global warming etc., if they are affixed to the fishing vessels then the information can be relayed to the relevant personnel who are interested in these studies
- iii) In this era of constant change, there is the need for access to modernized technology for all fishermen.
- iv) There is a need for more financial support for fishermen to be able to widen the studies and upgrade their training.

ACKNOWLEDGEMENTS

I would like to thank the Board and members of the GCFI for making my participation possible. Dr. Patrick McConney was instrumental in securing the funding so necessary for fishers to be actively involved in these types of forums. Last but not least, my fellow fisher, Anderson, encouraged me to get involved. I gratefully acknowledge travel sponsorship from the United Nations Environment Programme (UNEP) Caribbean Environment Programme Regional Co-ordinating Unit and the Caribbean Marine Protected Areas Managers (CaMPAM) network.